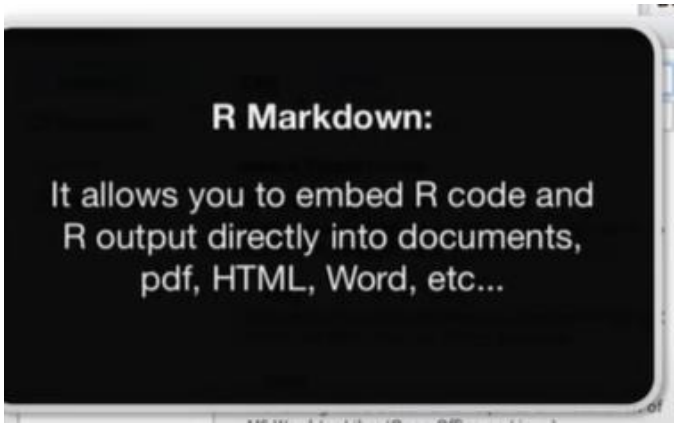
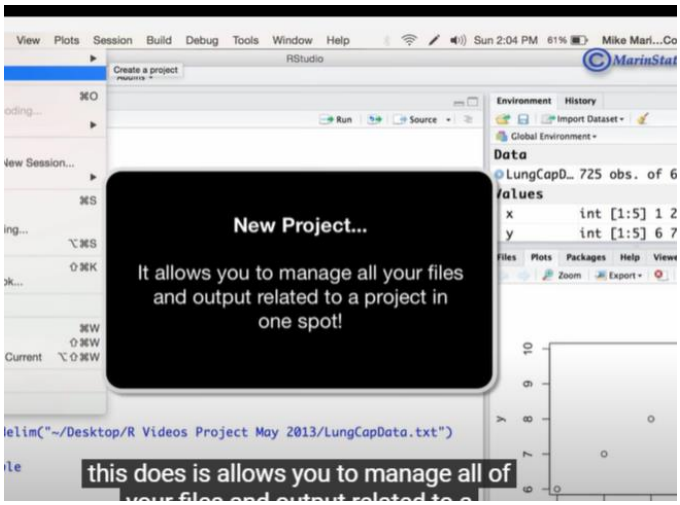
1.1-1.3





import data、create and manage scripts/markdown:

x = 11

print(x)

x

y <- 7

ls() everything stored in the workspace memory

rm() remove

x.1<-14

xx <- "marin"

yy <- "1" as a character

```
11+14
7*9
x+y
z <- x+y
y^2
sqrt(y)
log(y)
exp(y)
log2(y)
abs(-14)
#  what...
=, -> assign  兩種都可
class()  顯示資料形式
View()  查看
print()  列印值
rm()  移除值或變數  rm(list=ls())  移除全部
c()  向量
length()  變數長度
as.data.frame  底線可更換為其他資料形式

1.4
seq(from = 1, to = 9, by = 2)
1 3 5 7 9

matrix()  byrow T or F
matrix[行,列]
matrix、向量都可做運算

for (i in -3:7) {
  for (j in 6:9) {
    print(i^2+sqrt(j))
  }
}

1.5
import data from excel to R
.csv
read.csv(file.choose(), header = T)
```

read.table(file.choose(), header = , sep = “,”)
.txt
read.delim(file.choose(), header = T)
read.table(file.choose(), header = , sep = “\t")
或是直接 import excel 檔
1.6
readxl (package)
1.7
export data from R
write.table(欲輸出名稱, file = "/路徑/檔名,檔案類型 ")
1.8
data.frame (nickname=c(“Tom” , “Jack”) , height=170:180)
  nickname height
1 Tom 170
2 Jack 180
mean(LungCapData$Age) 平均 $可以指定 column 資料
attach(LungCapData) 去抓出 column 名字 讓 R 知道要從哪裡去抓 Age, Height 等資料
detach 把 attach 到的資料清除
1.9
mean(Age[Gender == “male”,]) 性別「等於」” male”時的平均
=(->) 指派 assign == 等同於
子集合
MaleOver15 = LungCapData[Gender == “male” & Age > 15,]
1.10
邏輯變數（logical variable）
temp <- Age > 15
Temp <- as.numeric(Age>15)
as.numeric(Age > 15) 回傳的是 0,1
Cbind(data,data) 以 column 的方向結合
Rbind(data,data) 以 row 的方向結合
Rm(list=ls())：清除由上方所有儲存的資料
1.11
getwd() 目前的(編輯)working directory
setwd() 設定想要的 working d
load() 開啟欲繼續編輯的檔案
load(file.choose())
ave.image(“檔名.Rdata”)

1.12

Script：a script is a set of commands that usually includes commenting(#) on what each piece of code is intended to do.

Create a new r script: file/new/r script

1.13

Installing packages: Packages are add-ons that can extend R’ s functionality and perform specific tasks covering a wide range of modern statistics.

Install.packages(“套件”)

library(套件)

help(package =套件)

remove.packages(“套件”)